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| 10/006,554  | 12/06/2001  | Farshid Sabet-Sharghi | 10519/644<br>(SDK0256.001US) | 2639             |
| 67813 7590 07/07/2009<br>BRINKS HOFER GILSON & LIONE/SanDisk<br>P.O. BOX 10395<br>CHICAGO, IL 60610 |             |                       |                              |                  |
| EXAMINER  |             |                       |                              |                  |
| GELAGAY, SHEWAYE  |             |                       |                              |                  |
| ART UNIT  |             | PAPER NUMBER          |                              |                  |
| 2437  |             |                       |                              |                  |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/006,554

**Applicant(s)**

SABET-SHARGHI ET AL.

**Examiner**

SHEWAYE GELAGAY

**Art Unit**

2437

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 4, 6, 7 and 35-51 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4, 6, 7 and 35-51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF-100)  
Paper No(s)/Mail Date 12/19/08, 4/24/09
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

#### **DETAILED ACTION**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/24/09 has been entered. Note: The Examiner thanks the Applicant for pointing out that the "Election/Restriction" header on page 2 of the Office Action dated 10/28/08 is unintentional. The "Election/Restriction" header was inadvertently included in the last Office Action.
2. Claims 4, 7, 36-37, 39-40, 42, 45-46 and 51 have been amended. Claims 1-3, 5 and 8-34 are cancelled. Claims 4, 6-7 and 35-51 are pending.

#### ***Response to Arguments***

3. Applicant's arguments with respect to the primary reference Hirota have been fully considered but they are not persuasive. In response to the applicant's argument the following comments are made:

The applicant argued that Hirota recites the use of a single "Filekey" being used for the AOB frames in a given AOB file. The Examiner would like to point out that Hirota teaches an audio track including a plurality of encrypted AOBs encrypted with a plurality of different encryption keys. When an audio stream is for a music album which includes a long track, the long track is divided into a plurality of files to ensure that the number of

pieces of entry information for a single file does not exceed a predetermined number. When a playback apparatus reads a file and commences playback of AOBs included in the file, the playback apparatus also reads the management information and stores it in internal memory. When the playback of this AOB ends, the following AOB is read and overwritten into the internal memory of the playback apparatus to take place the management information that was hitherto stored. (col. 3, line 65-col. 5, line 40)

The output of the Frame and overwriting the cluster data are repeatedly performed, so that the Frames included in the File are successively outputted to the descrambler and AAC decoder. (col. 43, lines 40-67) The playback apparatus accesses the authentication region and reads the FileKey that is stored having the same number as the File. The FileKey is sent to the descrambler, so that by successively outputting Frames included in the File into the descrambler the Frames can be successively played back. (i.e. copying a fractional portion of encrypted audio or video content of the file, the fractional portion comprising less than about 10 seconds of content of the file) (col. 44, lines 10-49) Therefore Hirota teaches that a file is descrambling and decryption each File with different key. Each file comprises minimum playback of two seconds and maximum playback of 8.4 minutes. (i.e. the quantity of content copied and decrypted before copying and decrypting an additional quantity)

Applicant's specification discloses that "Track 300 is composed of AOB 304 and AOB 308, and track 302 is composed of AOB 306 and the last track is composed of AOB ...Audio files are referred to as audio objects (AOB's) ...A portion of the track is played back. This portion may be in any of the files that comprise the track." The

Examiner would like to point out again, Hirota teaches an audio track including a plurality of encrypted AOBs encrypted with a plurality of different encryption keys. When an audio stream is for a music album which includes a long track, the long track is divided into a plurality of files to ensure that the number of pieces of entry information for a single file does not exceed a predetermined number. When a playback apparatus reads a file and commences playback of AOBs included in the file, the playback apparatus also reads the management information and stores it in internal memory. When the playback of this AOB ends, the following AOB is read and overwritten into the internal memory of the playback apparatus to take place the management information that was hitherto stored. (col. 3, line 65-col. 5, line 40) Applicant also teaches "Each track may be made of multiple files, for example, in case of a long classical song. For large video clips, a title may comprise many files." Therefore a track is not decrypted in its entirety instead the track is divided into a plurality of files which are descrambled and decrypted with different keys.

Hirota teaches data can only be read from or written into the authentication region if mutual authentication has been successfully performed by the flash memory card and the device connected to the flash memory card. (col. 10, lines 3-35) The FileKeys are stored in the authentication region. (col. 13, lines 22-28) The playback apparatus that has succeeded in obtaining secure media ID then performs mutual authentication with the authorization unit of the flash memory card. When the mutual authentication succeeded, the playback apparatus generates a command for accessing the authentication region of the flash memory card ..., the authentication region access

control unit accesses the sector specified by the valid parameters and reads the encryption key FileKey and encrypts the encryption key FileKey using the secure key obtained during the mutual authentication...the playback apparatus decrypts the encryption key FileKey using the secure key...and decrypt again the encryption FileKey using the master key and the media ID to obtain the encryption key FileKey. Once the encryption key FileKey has been obtained and an AOB corresponding to this encryption key FileKey has been read from the obtained authentication region, the AOB is decrypted using the encryption key FileKey and music is simultaneously played. (col. 58, line 50-col. 60, line 13) Therefore the keys are calculated to decrypt and play only an AOB file not the entire track.

The applicant argued that Hirota does not disclose deleting the decrypted key after decryption the fraction portion of the audio and/or video file before decrypting an additional fractional portion of the file. Hirota discloses when a playback apparatus reads a file and commences playback of the audio objects included in the file, the playback apparatus also reads the management information ...when the playback of this audio object ends, the following audio object is read and the corresponding management information is read and overwritten. (col. 5, lines 22-40) According to The American Heritage College Dictionary "overwriting" is defined as "to destroy or lose old data by recording new data over it."

Applicant's argument failed to explicitly identify specific claim limitations, which would define a patentable distinction over prior arts. The examiner will not interpret to

read narrowly the claim language to read exactly from the specification, but will interpret the claim language in the broadest reasonable interpretation in view of the specification.

The rest of the Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 4, 6-7 and 35-51 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 4, 7 and 39 recite "wherein an audio and/ or video track comprises at least one audio and/or video file" and "retrieving only a portion of the audio and/or video file from the memory card" which was not described in the original application. Applicant's specification paragraph [0039] and [0092] discloses that " Track 300 is composed of AOB 304 and AOB 308, and track 302 is composed of AOB 306 and the last track is composed of AOB ...Audio files are referred to as audio objects (AOB's) ...A portion of the track is played back. This portion may be in any of the files that comprise the track." Therefore the original specification teaches it is a portion of the track that is played back not the portion of the files (AOBs).

6. Dependent claims 6, 35-38 and 40-51 are also rejected for inheriting the deficiencies of the independent claims.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 4, 6-7 and 35-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirota et al. (hereinafter Hirota) U.S. Patent 6,856,431 in view of Soneoka Akinao JP 11250141 (hereinafter Akinao).

As per claims 4 and 39:

Hirota teaches a device for playback of encrypted audio and/or video tracks from a memory card, wherein an audio and/or video track comprises at least one audio and/or video file, the device comprising:

a processor; (figure 52; col. 42, line 27-42)and

a module operatively coupled with the processor and configured, for each audio and/or video file within an audio and/or video track, for:

obtaining an encrypted key from a protected area of the memory card; (col. 59, lines 55-56)

retrieving only portion of the audio and/or video file from the memory card; (col. 10, lines 24-25; col. 14, lines 4-67; col. 44, lines 10-49; col.59, lines 65-66, col. 60, lines



5-6; While an Element has a playback period of around two seconds, Block has a maximum playback period of 8.4 minutes)

decrypting the obtained encrypted key; (col. 10, lines 24-25; col. 58, line 50-col. 60, line 13)

decrypting the portion of the audio and/or audio file the encrypted key. (col. 42, lines 34-35; col. 60, line 11; col. 58, line 50-col. 60, line 13)

In addition, Hirota further discloses when the playback of audio objects which create audio tracks ends, the following audio object is read and when the playback of the following audio object commences, the corresponding management information is read and overwritten into the internal memory of the playback device to take the place of management information that was hitherto stored. (Col. 5, lines 34-39; Col. 20, lines 52-61)

Hirota does not explicitly disclose immediately deleting the one or more keys after decrypting the audio and/or video content before decrypting. Akinao in analogous art, however, discloses immediately deleting the one or more keys after decrypting the audio and/or video content before decrypting. (paragraph [0014], [0017], [0021] – [0025]) Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the method disclosed by Hirota with Akinao in order to prevent unauthorized duplicate and circulation of contents. (paragraph [0009]; Akinao)

As per claims 6 and 40:

The combination of Hirota and Akinao teaches all the subject matter as discussed above. In addition, Hirota further discloses wherein the module is configured to retrieve and decrypt about two seconds of content at a time with the one or more decrypted keys before the decrypted key is deleted. (col. 15, lines 45-53)

As per claim 7:

Hirota teaches a computer readable storage medium having an executable program, the program to be utilized in an audio and/or video device for playback of encrypted tracks of audio/or video content, wherein an encrypted track of audio and/or video content comprises at least one encrypted audio or video files, the program configured to, for each encrypted audio or video file::

decrypt and encrypted audio or video track from the memory card, wherein decrypting the audio or video track comprises:

(a) decrypting a key stored in the memory of the device; (Col. 10, lines 24-25; col. 58, line 50-col. 60, line 13) and thereafter

(b) decrypting a portion of the audio or video file less than an entirety of the audio or video file; (col. 3, line 65-col. 5, line 40; Col. 42, lines 34-35; col. 58, line 50-col. 60, line 13)

(d) repeating (a) through (c) until the entirety of the audio or video file is decrypted. (col. 20, lines 56-61; Col. 47, lines 25-27; Col. 60, lines 11)

In addition, Hirota further discloses when the playback of audio objects which create audio tracks ends, the following audio object is read and when the playback of the following audio object commences, the corresponding management information is

read and overwritten into the internal memory of the playback device to take the place of management information that was hitherto stored. (Col. 5, lines 34-39; Col. 20, lines 52-61)

Hirota does not explicitly disclose (d) deleting the decrypted title key; and (e) deleting the media unique key. Akinao in analogous art, however, discloses immediately deleting the one or more keys after decrypting the audio and/or video content before decrypting. (paragraph [0014], [0017], [0021] – [0025]) Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the method disclosed by Hirota with Akinao in order to prevent unauthorized duplicate and circulation of contents. (paragraph [0009]; Akinao)

As per claims 35 and 41:

The combination of Hirota and Akinao teaches all the subject matter as discussed above. In addition, Hirota further discloses wherein the device comprises a personal computer or a portable device. (figure 52)

As per claims 36, 38, 42 and 44:

The combination of Hirota and Akinao teaches all the subject matter as discussed above. In addition, Hirota further discloses wherein decrypting the data comprises: decrypting the encrypted keys; (col. 10, lines 24-25; col.59, lines 65-66, col. 60, lines 5-6) decrypting one of the plurality of additional fractional portions of the audio and/or video files with the decrypted keys. (col. 42, lines 34-35; col. 60, line 11) In addition, Dolan in analogous art, however, discloses the title and disc key may be deleted whenever copying is performed. (Abstract; col. 4, lines 50-58)

As per claim 37 and 51:

The combination of Hirota and Akinao teaches all the subject matter as discussed above. In addition, Hirota further discloses wherein the module is further configured to store the encrypted key in a memory of the device; and for each of the additional fractional portions of the audio/video file, decrypt the encrypted key stored in the memory of the device. (col. 10, lines 24-25; col.59, lines 65-66, col. 60, lines 5-6)

As per claim 43 and 46:

The combination of Hirota and Akinao teaches all the subject matter as discussed above. In addition, Hirota further discloses calculating the media unique key; and decrypting the encrypted title key with the media unique key. (col. 10, lines 24-25; col.59, lines 65-66, col. 60, lines 5-6)

As per claim 45:

The combination of Hirota and Akinao teaches all the subject matter as discussed above. In addition, Hirota further discloses retrieving a portion of the audio and/or video file comprising less than about 10 seconds of playback. (col. 10, lines 24-25; col. 14, lines 4-67; col. 44, lines 10-49; col.59, lines 65-66, col. 60, lines 5-6)

As per claim 47-49:

The combination of Hirota and Akinao teaches all the subject matter as discussed above. In addition, Hirota further discloses a method wherein the playlist information comprises: the name of a playlist; (Col. 17, line 39-col. 18, line 67) the playlist name string length; (Col. 17, line 39-col. 18, line 67) the playback time of the playlist; (Col. 17, line 39-col. 18, line 67) the tracks comprised by the playlist; (Col. 17,

line 39-col. 18, line 67) and the index corresponding to the playlist. (Col. 17, line 39-col. 18, line 67)

As per claim 50:

The combination of Hirota and Akinao teaches all the subject matter as discussed above. In addition, Hirota further discloses a method wherein the track information comprises: a track number; (Col. 17, line 39-col. 18, line 67) an index corresponding to the track number; (Col. 17, line 39-col. 18, line 67) a number of track units in the track; (Col. 17, line 39-col. 18, line 67) and the playback time of the track. (Col. 17, line 39-col. 18, line 67)

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHEWAYE GELAGAY whose telephone number is (571)272-4219. The examiner can normally be reached on 8:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on 571-272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. G./  
Examiner, Art Unit 2437

/Emmanuel L. Moise/  
Supervisory Patent Examiner, Art Unit 2437